

LISTING OF THE CLAIMS

A detailed listing of claims is presented below. Please amend currently amended claims as indicated below including substituting clean versions for pending claims with the same number. In addition, clean text versions of pending claims not being currently amended that are under examination are also presented. It is understood that any claim presented in a clean version below has not been changed relative to the immediate prior version.

1. (Currently Amended) A display unit comprising:
a passive matrix of independently controllable pixels comprising $[[n]]$ rows and $[[m]]$ columns of discrete pixels, said passive matrix operable to generate an image in response to electronic signals driven from row and column drivers coupled to said passive matrix, said image representative of information stored in a frame buffer memory; and
a $[[fixed]]$ permanent pixel border arranged in rows and columns ~~having a predetermined width, said fixed pixel border~~ surrounding said passive matrix and comprising a fixed number of a plurality of pixels dedicated to said permanent pixel border, each of said plurality of pixels $[[which is]]$ uniformly controlled between an on and an off state as applied to each pixel by a constant and common threshold signal, wherein said constant and common threshold signal is driven by constant and common voltages for said rows and said columns in said permanent pixel border for each state.

2. (Previously Presented) A display unit as described in Claim 1 and further comprising:

a contrast adjustment circuit for adjusting voltage levels supplied to said row and column drivers to adjust the contrast of said image of said passive matrix, and wherein said contrast adjustment circuit is also operable to adjust said common threshold signal to match the contrast of said fixed pixel border to that of said passive matrix.

3. (Previously Presented) A display unit as described in Claim 1 wherein said image has a white background and a black foreground and wherein said fixed pixel border is driven to said on state to be white to match said background.

4. (Original) A display unit as described in Claim 1 wherein said passive matrix is negative display mode liquid crystal display technology.

5. (Original) A display unit as described in Claim 4 wherein said liquid crystal display technology is supertwisted nematic.

6. (Original) A display unit as described in Claim 1 wherein said passive matrix is electronic ink technology.

7. (Original) A display unit as described in Claim 1 wherein said passive matrix is microelectromechanical system (MEMS) technology.

8. (Original) A display unit as described in Claim 1 and further comprising a drive circuit responsive to a single control signal for generating said common threshold signal.

9. (Original) A display unit as described in Claim 1 wherein each pixel of said passive matrix comprises: a red subpixel; a green subpixel; and a blue subpixel, said subpixels of a matrix pixel sharing a common row and spanning three columns.

10. (Previously Presented) A display unit as described in Claim 9 wherein each pixel of said fixed pixel border comprises: a red subpixel; a green subpixel; and a blue subpixel.

11. (Original) A display unit as described in Claim 1 wherein said predetermined width is two pixels.

12. (Original) A display unit as described in Claim 1 wherein said passive matrix comprises 160 rows and 160 columns of discrete pixels.

13. (Currently Amended) A display unit comprising:

a passive matrix of independently controllable pixels comprising $[[n]]$ rows and $[[m]]$ columns of discrete pixels, said passive matrix being negative display mode and operable to generate an image in response to electronic signals driven from row and column drivers coupled to said passive matrix, said image representative of information stored in a frame buffer memory;

a $[[fixed]]$ permanent pixel border arranged in rows and columns ~~having a predetermined width, said fixed pixel border~~ surrounding said passive matrix and comprising a fixed number of a plurality of pixels dedicated to said permanent pixel border, each of said plurality of pixels $[[which is]]$ uniformly controlled between an on and an off state as applied to each pixel by a constant and common threshold signal generated from a constant and common row threshold voltage and a constant and common column threshold voltage; and

a contrast adjustment circuit for adjusting voltage levels supplied to said row and column drivers to adjust the contrast of said image of said passive matrix, wherein said contrast adjustment circuit is also operable to adjust said common threshold signal to match the contrast of said passive matrix.

14. (Previously Presented) A display unit as described in Claim 13 wherein said image has a white background and a black foreground and wherein said fixed

pixel border is driven to said on state to be white to match said background.

15. (Original) A display unit as described in Claim 13 wherein said passive matrix is supertwisted nematic liquid crystal display technology.

16. (Original) A display unit as described in Claim 13 and further comprising a drive circuit responsive to a single control signal for generating said common threshold signal.

17. (Original) A display unit as described in Claim 13 wherein said predetermined width is two pixels.

18. (Original) A display unit as described in Claim 13 wherein said passive matrix comprises 160 rows and 160 columns of discrete pixels.

19. (Currently Amended) A portable electronic device comprising:

a processor coupled to a bus;

a memory unit coupled to said bus;

a user input device coupled to said bus; and

a display unit coupled to said bus and comprising:

a passive matrix of independently controllable pixels comprising n rows and m columns of discrete pixels,

said passive matrix operable to generate an image in response to electronic signals driven from row and column drivers coupled to said passive matrix, said image representative of information stored in a frame buffer memory; and

a ~~[[fixed]]~~ permanent pixel border arranged in rows and columns having a predetermined width, said fixed pixel border surrounding said passive matrix and comprising a fixed number of a plurality of pixels dedicated to said permanent pixel border, each of said plurality of pixels ~~[[which is]]~~ uniformly controlled between an on and an off state as applied to each pixel by a constant and common threshold signal, wherein said constant and common threshold signal is driven by constant and common voltages for said rows and said columns in said permanent pixel border for each state.

20. (Previously Presented) A portable electronic device as described in Claim 19 and further comprising:

a contrast adjustment circuit for adjusting voltage levels supplied to said row and column drivers to adjust the contrast of said image of said passive matrix, and wherein said contrast adjustment circuit is also operable to adjust said common threshold signal to match the contrast of said fixed pixel border to that of said passive matrix.

21. (Previously Presented) A portable electronic device as described in Claim 19 wherein said image has a white background and a black foreground and wherein said

fixed pixel border is driven to said on state to be white to match said background .

22. (Original) A portable electronic device as described in Claim 19 wherein said passive matrix is negative display mode supertwisted nematic liquid crystal display technology.

23. (Original) A portable electronic device as described in Claim 19 and further comprising a drive circuit responsive to a single control signal for generating said common threshold signal.

24. (Original) A portable electronic device as described in Claim 19 wherein said predetermined width is two pixels and wherein said passive matrix comprises 160 rows and 160 columns of discrete pixels.

25. (Currently Amended) A display unit comprising:
a passive matrix of independently controllable pixels comprising a fixed dimension of $[[n]]$ rows and $[[m]]$ columns of discrete pixels, said passive matrix operable to generate an image in response to electronic signals driven from row and column drivers coupled to said passive matrix, said image representative of information stored in a frame buffer memory; and

a pixel border surrounding said passive matrix and comprising a plurality of pixels each of which is uniformly controlled between an on and an off state as applied to each pixel by a constant and common threshold signal, wherein said constant and common threshold signal is driven by constant and common voltages for said rows and said columns in said pixel border for each state.

26. (Previously Presented) The display unit of Claim 25, wherein said pixel border is of a predetermined width.

27. (Previously Presented) The display unit of Claim 25, wherein said predetermined width is two pixels.

28. (Previously Presented) The display unit of Claim 25 and further comprising:

a contrast adjustment circuit for adjusting voltage levels supplied to said row and column drivers to adjust the contrast of said image of said passive matrix, and wherein said contrast adjustment circuit is also operable to adjust said common threshold signal to match the contrast of said pixel border to that of said passive matrix.

29. (Previously Presented) A display unit of Claim 25, wherein said image has a white background and a black foreground and wherein said pixel border is driven to said on state to be white to match said background.